

REMARKS

This is intended as a full and complete response to the Office Action dated November 17, 2006, having a shortened statutory period for response set to expire on February 17, 2007. Please reconsider the claims pending in the application for reasons discussed below.

Claims 11 and 14-24 are pending in the application. Claims 11 and 14-24 remain pending following entry of this response. Claims 11 and 19 have been amended. Applicants submit that the amendments do not introduce new matter.

Claim Rejections - 35 U.S.C. § 102

Claims 11, 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kubota (5,065,215). Applicants respectfully traverse this rejection.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

In this case, *Kubota* does not disclose "each and every element as set forth in the claim". For example, with respect to independent claim 11, *Kubota* does not disclose at least a doped region "completely surrounded by the source/drain electrode except for a surface to contact the filling of the bit-line contact, at least a portion of the source/drain electrode disposed between the doped region and the substrate preventing contact between the doped region and the substrate."

In *Kubota* Figures 1B and 2B-2E clearly show that the "p+ type source (drain) region 121" contacts the silicon substrate 100 and that no other substance or material is between the source/drain region and the substrate preventing contact between the

doped region and the substrate. However, the Examiner argues that the p+ source (drain) region 121 in Kubota is not necessarily contacting the substrate but ending in the source/drain electrode since the drawings of Kubota are not considered to be to scale. (Office Action, Page 6, Paragraph 4).

However, Applicants submit that scale is irrelevant with regards to the teaching of Kubota. Scale goes to degree or proportions, while the present issue is whether Kubota teaches the claim limitations at all. The lower interface between the substrate and the p+ type region 121 is a **solid line, suggesting no intervening material**. If Kubota had intended to disclose the presence of the p- type region 120 between the substrate and the p+ type source region 121 to prevent the p+ type source region 121 from contacting the substrate 100, this feature would have been clear from the Figures and/or specification of Kubota. Instead, Kubota the solid line between the substrate and the p+ type region 121 clearly illustrates that the substrate and the p+ type region 121 contact each other. Thus, the only affirmative disclosure in Kubota is of contact between the substrate p+ type region 121.

Again, the issue is not one of scale (as suggested by the Examiner), as the reference simply fails to disclose the presence of a doped to prevent contact between the a source/drain electrode and a substrate, and instead discloses direct contact between a doped region (p+ region 121) and the substrate. Further, to the extent that the Examiner suggests a solid line can suggest more than one interface (i.e., contact between more than two materials), Applicants respectfully submit that such an argument is untenable as being inconsistent with common sense and with the requirements pertaining to drawings which require clarity and distinctiveness (*See*, 37 CFR § 1.84).

Thus, *Kubota* does not disclose "each and every element as set forth in the claim" and, therefore, claim 11 and its dependent claims are believed to be allowable, and allowance of the claims is respectfully requested.

Claim Rejections - 35 U.S.C. § 103

Claims 15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota as applied to claims 11, 14 and 16 above, and further in view of Lu (6,218,693).

Claims 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota as applied to claims 11, 14 and 16 above, and further in view of Bollinger et al. (6,762,136), and further in view of Lu.

Applicants respectfully traverse these rejections.

The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. See MPEP § 2142. To establish a *prima facie* case of obviousness three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP § 2143. The present rejection fails to establish at least the third criteria.

As discussed above, *Kubota* does not teach, show or suggest “a fraction of the source/drain electrode disposed between the doped region and the substrate preventing contact between the doped region and the substrate” as recited in independent claims 11 and 19. *Lu* and *Bollinger* also fail to teach, show or suggest “a fraction of the source/drain electrode disposed between the doped region and the substrate preventing contact between the doped region and the substrate” as recited in the claims. Thus, the references cited by the Examiner, either alone or in combination, do not teach, show or suggest the claimed subject matter. Therefore, independent claims 11 and 19, and their dependent claims are believed to be allowable, and allowance of the claims is respectfully requested.

Conclusion

Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted, and
S-signed pursuant to 37 CFR 1.4,

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